or once and a half the volume of air in the room. If the inmates have each 1000 cubic feet of space, it follows that either their supply of fresh air is short by 1500 cubic feet per head per hour, or else that there are sources of excessive humidity within the air-space which demand immediate removal.

II. "On the Effect of Heat on the Chloride, Bromide, and Iodide of Silver." By G. F. RODWELL, F.R.A.S., F.C.S., Science Master in Marlborough College. Communicated by Professor TYNDALL, F.R.S. Received March 10, 1876.

III. "On the Effects of Heat on some Chloro-brom-iodides of Silver." By G. F. RODWELL, F.R.A.S., F.C.S., Science Master in Marlborough College. Communicated by FREDERICK GUTHRIE, F.R.S., Professor of Physics in the Royal School of Mines. Received April 13, 1876.

IV. "On the Absorption-Spectra of Bromine and Iodine Monochloride." By H. E. ROSCOE, F.R.S., and T. E. THORPE. Received March 16, 1876.

(Abstract.)

The paper contains the results of an exact series of measurements of the absorption-spectra of the vapours of the element bromine and of the compound iodine monochloride, made with the object of ascertaining whether the molecules of these two gases vibrate identically or similarly, their molecular weights and colour of the vapours being almost identical. The two spectra, which are both channelled, were compared simultaneously by means of one of Kirchhoff's 4-prism spectroscopes, the position of the lines being read off by reflection on an arbitrary scale. In order to determine the wave-lengths of these bands, the wave-length of each of 27 air-lines lying between the extremes of the absorption-spectra was ascertained by reference to Thalén's numbers; whilst for the purpose of reducing the readings of the absorption-bands to wave-lengths a graphical method was employed, the details of which are given in the paper. This method appears to be one of general applicability for the plotting of spectra.

Tables then follow giving the wave-lengths of 66 bands of each absorption-spectrum; and a map accompanies the text in which the bands are drawn to a scale one half that of Ångström's "Spectre Normal."

A careful comparison of these Tables and of the map shows that, although both spectra contain a large number of lines which are nearly coincident, the spectra as a whole are not identical, either when the vapours are examined at high or low temperatures, or when the lengths of the columns of absorbing gas are varied.